L Number	Hits	Search Text	DB	Time stamp	
4	2669	430/312,314,316-317.ccls.	USPAT;	2003/09/13	09:29
			US-PGPUB;		
			EPO; JPO; IBM TDB		
5	7866	438/584,622,624,637-638,700,702,723-724.ccl		2003/09/13	09:29
			US-PGPUB;	2000, 00, 20	05125
			EPO; JPO;		
			IBM_TDB		
6	1913	dual adj damascene and (etch\$3 near3	USPAT;	2003/09/13	09:30
		stop\$4 or hardmask\$3 or hard\$4 near3	US-PGPUB;		
		mask\$3)	EPO; JPO; IBM TDB		
7	10406	430/312,314,316-317.ccls. or	USPAT;	2003/09/13	09:31
'		438/584,622,624,637-638,700,702,723-724.ccl			•••
			EPO; JPO;		
			IBM_TDB		
8	723	(430/312,314,316-317.ccls. or	USPAT;	2003/09/13	09:31
		438/584,622,624,637-638,700,702,723-724.ccl			
		and (dual adj damascene and (etch\$3 near3 stop\$4 or hardmask\$3 or hard\$4 near3	EPO; JPO; IBM TDB		
9	1139	madk\$1) adj damascene) or (((multilevel or	USPAT;	2003/09/13	09.45
	1133	multi adj level) same interconnect\$3) same	US-PGPUB;	2003/03/13	05.45
		semiconduct\$4)).ti,ab.	EPO; JPO;	İ	
			IBM_TDB		
10	550	(((dual adj damascene) or (((multilevel or	USPAT;	2003/09/13	09:45
		multi adj level) same interconnect\$3) same	US-PGPUB;		
		semiconduct\$4)).ti,ab.) and etch\$3 adj	EPO; JPO;		
11	527	stop\$4 same (insulat\$3 or dielectric\$4) ((((dual adj damascene) or (((multilevel	<pre>IBM_TDB USPAT;</pre>	2003/09/13	09.46
**	52,	or multi adj level) same interconnect\$3)	US-PGPUB;	2003/03/13	07.40
		same semiconduct\$4)).ti,ab.) and etch\$3	EPO; JPO;		
		adj stop\$4 same (insulat\$3 or	IBM TDB		
		dielectric\$4)) and (via or hole or void or	_		İ
		opening or trench\$3 or plug\$3) same			
1.0	246	(conduct\$4 or metal\$8)		0000 (00 (10	00.45
12	346	<pre>(((((dual adj damascene) or (((multilevel or multi adj level) same interconnect\$3)</pre>	USPAT; US-PGPUB;	2003/09/13	09:46
		same semiconduct\$4)).ti,ab.) and etch\$3	EPO; JPO;		
!		adj stop\$4 same (insulat\$3 or	IBM TDB		
		dielectric\$4)) and (via or hole or void or	-		
		opening or trench\$3 or plug\$3) same	•		
		(conduct\$4 or metal\$8)) and etch\$3 adj			
13	170	<pre>stop\$4 same (resist or photoresist) ((((((dual adj damascene) or (((multilevel))))))))))))))))))))))))))))))))))</pre>	HCDAM.	2002/00/12	00.46
13	179	or multi adj level) same interconnect\$3)	USPAT; US-PGPUB;	2003/09/13	09:46
		same semiconduct\$4)).ti,ab.) and etch\$3	EPO; JPO;		
		adj stop\$4 same (insulat\$3 or	IBM TDB		
		dielectric\$4)) and (via or hole or void or	_		İ
		opening or trench\$3 or plug\$3) same			
		(conduct\$4 or metal\$8)) and etch\$3 adj			
		stop\$4 same (resist or photoresist)) and (insulat\$3 or dielectric) same ((("USG"			
		or oxide or "O.sub."?) same (high adj			
		density adj plasma or "HDP")) or (oxide or			
		"O.sub."?) same (plasma adj enhanced adj			
		chemical adj vapor adj deposition or			
		plasma adj enhanced adj "CVD" or plasma			
		adj "ECVD" or "PECVD" or low adj pressure			ļ
		adj chemical adj vapor adj deposition or			
		low adj pressure adj "CVD" or "LPCVD") or spin adj on adj glass or "SOG" or tetra			
		adj ethyl adj ortho adj silicate or			
		tetraethyl adj orto adj silicate or			
		tetraethyl adj orthosilicate or tetra adj			
		ethylorthosilicate or			
		tetraethylorthosilicate or "TEOS")		}	

14	168	((((((dual adj damascene) or	USPAT;	2003/09/13 09:47
		(((multilevel or multi adj level) same	US-PGPUB;	
		interconnect\$3) same	EPO; JPO;	
		semiconduct\$4)).ti,ab.) and etch\$3 adj	IBM_TDB	
		stop\$4 same (insulat\$3 or dielectric\$4))		
		and (via or hole or void or opening or		
		trench\$3 or plug\$3) same (conduct\$4 or		
		metal\$8)) and etch\$3 adj stop\$4 same		
		(resist or photoresist)) and (insulat\$3 or		
		dielectric) same ((("USG" or oxide or		
		"O.sub."?) same (high adj density adj		
	+	plasma or "HDP")) or (oxide or "O.sub."?)		
		same (plasma adj enhanced adj chemical adj		
		vapor adj deposition or plasma adj		
1		enhanced adj "CVD" or plasma adj "ECVD" or	ļ	
		"PECVD" or low adj pressure adj chemical		
		adj vapor adj deposition or low adj		
		pressure adj "CVD" or "LPCVD") or spin adj	,	
		on adj glass or "SOG" or tetra adj ethyl		
		adj ortho adj silicate or tetraethyl adj		
		orto adj silicate or tetraethyl adj		
		orthosilicate or tetra adj		
		ethylorthosilicate or		
		tetraethylorthosilicate or "TEOS")) and		
		(insulat\$3 or dielectric) same thick\$4		
15	84	(((((((dual adj damascene) or	USPAT;	2003/09/13 09:47
		(((multilevel or multi adj level) same	US-PGPUB;	
		interconnect\$3) same	EPO; JPO;	
		semiconduct\$4)).ti,ab.) and etch\$3 adj	IBM_TDB	
		stop\$4 same (insulat\$3 or dielectric\$4))		
		and (via or hole or void or opening or		
		trench\$3 or plug\$3) same (conduct\$4 or		
		metal\$8)) and etch\$3 adj stop\$4 same		
		(resist or photoresist)) and (insulat\$3 or		
		dielectric) same ((("USG" or oxide or		
		"O.sub."?) same (high adj density adj		
		plasma or "HDP")) or (oxide or "O.sub."?)		
		same (plasma adj enhanced adj chemical adj vapor adj deposition or plasma adj		
		enhanced adj "CVD" or plasma adj "ECVD" or		
1		"PECVD" or low adj pressure adj chemical		
		adj vapor adj deposition or low adj		
		pressure adj "CVD" or "LPCVD") or spin adj		
		on adj glass or "SOG" or tetra adj ethyl		
		adj ortho adj silicate or tetraethyl adj		
		orto adj silicate or tetraethyl adj		
		orthosilicate or tetra adj		
		ethylorthosilicate or		
		tetraethylorthosilicate or "TEOS")) and		
		(insulat\$3 or dielectric) same thick\$4)		
	1	and etch\$3 adj stop\$4 same (((nitride or		
		"N.sub."?) same (plasma adj enhanced adj		
		chemical adj vapor adj deposition or		
		plasma adj enhanced adj "CVD" or plasma		
		adj "ECVD" or "PECVD")) or (silicon or		
		"Si") adj oxynitride or siliconoxynitride		
		or silicon adj "ON" or "SiON" or (tantalum		
		or "Ta") adj oxide or "Ta.sub.2" adj		
		"O.sub.5" or (zinc or "Zn") adj oxide or		
	1	"Zn" adj "O.sub."2 or "ZnO" or (zirconium		
		or "Zr") adj oxide or "Zr" adj "O.sub.2"		
		or (hafnium or "Hf") adj oxide or "HfO" or		
		(aluminum or "Al") adj oxide or "Al.sub.2"		
		adj "O.sub.3")		

16	77 ((((((((dual adj damascene) or	USPAT;	2003/09/13 09:48
	(((multilevel or multi adj level) same	US-PGPUB;	1
	interconnect\$3) same	EPO; JPO;	
İ	semiconduct\$4)).ti,ab.) and etch\$3 adj	IBM TDB	
	stop\$4 same (insulat\$3 or dielectric\$4))	_	
	and (via or hole or void or opening or		
ļ	trench\$3 or plug\$3) same (conduct\$4 or		
	metal\$8)) and etch\$3 adj stop\$4 same		
	(resist or photoresist)) and (insulat\$3 or		
	dielectric) same ((("USG" or oxide or		
	"O.sub."?) same (high adj density adj		
	plasma or "HDP")) or (oxide or "O.sub."?)		
	same (plasma adj enhanced adj chemical adj		
	vapor adj deposition or plasma adj		
	enhanced adj "CVD" or plasma adj "ECVD" or		
	"PECVD" or low adj pressure adj chemical		
	adj vapor adj deposition or low adj		
	pressure adj "CVD" or "LPCVD") or spin adj		
	on adj glass or "SOG" or tetra adj ethyl		
	adj ortho adj silicate or tetraethyl adj		
	orto adj silicate or tetraethyl adj		
1	orthosilicate or tetra adj		
	ethylorthosilicate or		
	tetraethylorthosilicate or "TEOS")) and		
	(insulat\$3 or dielectric) same thick\$4)		
	and etch\$3 adj stop\$4 same (((nitride or		1
1	"N.sub."?) same (plasma adj enhanced adj		
1	chemical adj vapor adj deposition or		
	plasma adj enhanced adj "CVD" or plasma		
	adj "ECVD" or "PECVD")) or (silicon or		
	"Si") adj oxynitride or siliconoxynitride		
	or silicon adj "ON" or "SiON" or (tantalum		
	or "Ta") adj oxide or "Ta.sub.2" adj		
	"O.sub.5" or (zinc or "Zn") adj oxide or		
	"Zn" adj "O.sub."2 or "ZnO" or (zirconium		
	or "Zr") adj oxide or "Zr" adj "O.sub.2"		
	or (hafnium or "Hf") adj oxide or "HfO" or		
	(aluminum or "Al") adj oxide or "Al.sub.2"		
	adj "O.sub.3")) and etch\$3 adj stop\$4		
	same thick\$4		

US-PGPUB; EPO; JPO; IBM_TDB	
EPO; JPO;	
IBM_TDB	
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	or dj or dj

19	59	((((((((((((dual adj damascene) or	USPAT;	2003/09/13 10:13	1
		(((multilevel or multi adj level) same	US-PGPUB;	1	
		interconnect\$3) same	EPO; JPO;		
	1	semiconduct\$4)).ti,ab.) and etch\$3 adj	IBM TDB		
		stop\$4 same (insulat\$3 or dielectric\$4))	_ `		l
		and (via or hole or void or opening or			l
		trench\$3 or plug\$3) same (conduct\$4 or			l
		metal\$8)) and etch\$3 adj stop\$4 same			l
		(resist or photoresist)) and (insulat\$3 or			ļ
	-	dielectric) same ((("USG" or oxide or			1
		"O.sub."?) same (high adj density adj		1	١
		plasma or "HDP")) or (oxide or "O.sub."?)			l
		same (plasma adj enhanced adj chemical adj			l
		vapor adj deposition or plasma adj			l
		enhanced adj "CVD" or plasma adj "ECVD" or			l
		"PECVD" or low adj pressure adj chemical			١
		adj vapor adj deposition or low adj			I
		pressure adj "CVD" or "LPCVD") or spin adj			
		on adj glass or "SOG" or tetra adj ethyl			ĺ
		adj ortho adj silicate or tetraethyl adj			l
		orto adj silicate or tetraethyl adj			l
		orthosilicate or tetra adj			l
		ethylorthosilicate or			l
		tetraethylorthosilicate or "TEOS")) and			l
		(insulat\$3 or dielectric) same thick\$4)			١
		and etch\$3 adj stop\$4 same (((nitride or			ı
		"N.sub."?) same (plasma adj enhanced adj			١
		chemical adj vapor adj deposition or			l
	İ	plasma adj enhanced adj "CVD" or plasma			
		adj "ECVD" or "PECVD")) or (silicon or			l
		"Si") adj oxynitride or siliconoxynitride			l
		or silicon adj "ON" or "SiON" or (tantalum			l
		or "Ta") adj oxide or "Ta.sub.2" adj			١
		"O.sub.5" or (zinc or "Zn") adj oxide or	ľ		l
		"Zn" adj "O.sub."2 or "ZnO" or (zirconium			l
		or "Zr") adj oxide or "Zr" adj "O.sub.2"			l
	1	or (hafnium or "Hf") adj oxide or "HfO" or			
	1	(aluminum or "Al") adj oxide or "Al.sub.2"			l
		adj "O.sub.3")) and etch\$3 adj stop\$4			l
		same thick\$4) and (conduct\$4 or metal\$8)			l
		same (aluminum or "Al" or copper or "Cu"			
		or gold or "Au" or silver or "Ag" or			
		chrome or chromiumn or "Cr")) and			
	-	(conduct\$4 or metal\$8 or aluminum or "Al"			١
		or copper or "Cu" or gold or "Au" or			
		silver or "Ag" or chrome or chromiumn or			
	1	"Cr") same thick\$4		I	Ĺ

20	681	((430/312,314,316-317.ccls. or	USPAT;	2003/09/13 10:07
=		438/584,622,624,637-638,700,702,723-724.ccl		
		and (dual adj damascene and (etch\$3 near3	EPO; JPO;	
		stop\$4 or hardmask\$3 or hard\$4 near3	IBM TDB	
		mask\$3))) not (((((((((dual adj	_	
		damascene) or (((multilevel or multi adj		
		level) same interconnect\$3) same		
		semiconduct\$4)).ti,ab.) and etch\$3 adj		
		stop\$4 same (insulat\$3 or dielectric\$4))		
		and (via or hole or void or opening or		
		trench\$3 or plug\$3) same (conduct\$4 or		
		metal\$8)) and etch\$3 adj stop\$4 same		
		(resist or photoresist)) and (insulat\$3 or		
		dielectric) same ((("USG" or oxide or		
		"O.sub."?) same (high adj density adj		
		plasma or "HDP")) or (oxide or "O.sub."?)		
		same (plasma adj enhanced adj chemical adj		
		vapor adj deposition or plasma adj		
		enhanced adj "CVD" or plasma adj "ECVD" or		
		"PECVD" or low adj pressure adj chemical		
		adj vapor adj deposition or low adj		
		pressure adj "CVD" or "LPCVD") or spin adj		
		on adj glass or "SOG" or tetra adj ethyl		
		adj ortho adj silicate or tetraethyl adj		
		orto adj silicate or tetraethyl adj		
		orthosilicate or tetra adj		
		ethylorthosilicate or	,	
		tetraethylorthosilicate or "TEOS")) and		
	1	(insulat\$3 or dielectric) same thick\$4)		
•		and etch\$3 adj stop\$4 same (((nitride or		
		"N.sub."?) same (plasma adj enhanced adj		
		chemical adj vapor adj deposition or		
	1	plasma adj enhanced adj "CVD" or plasma		
		adj "ECVD" or "PECVD")) or (silicon or		
	İ	"Si") adj oxynitride or siliconoxynitride		
		or silicon adj "ON" or "SiON" or (tantalum		
		or "Ta") adj oxide or "Ta.sub.2" adj		
		"O.sub.5" or (zinc or "Zn") adj oxide or		
		"Zn" adj "O.sub."2 or "ZnO" or (zirconium		
		or "Zr") adj oxide or "Zr" adj "O.sub.2"		
		or (hafnium or "Hf") adj oxide or "HfO" or		
		(aluminum or "Al") adj oxide or "Al.sub.2"		
		adj "O.sub.3")) and etch\$3 adj stop\$4		
		same thick\$4) and (conduct\$4 or metal\$8)		
		same (aluminum or "Al" or copper or "Cu"		
		or gold or "Au" or silver or "Ag" or		
		of gold of Ad of Silver of Ag of	<u> </u>	

chrome or chromiumn or "Cr")) and (conduct\$4 or metal\$8 or aluminum or "Al" or copper or "Cu" or gold or "Au" or silver or "Ag" or chrome or chromiumn or "Cr") same thick\$4)